IN THE CLAIMS

Please cancel claims 1-33. Add new claims 1-12.

1. (New) A method of determining symbol streams in a multi-channel communication system, comprising:

receiving a plurality of N_R input symbol streams;

processing the plurality N_R input symbol streams to provide N_T detected symbol stream(s) where $N_T \geq 1$; and

recovering a selected detected symbol stream from the N_T detected symbol stream(s).

2. (New) The method of claim 1, wherein the processing is spatial processing.

3. (New) The method of claim 1, wherein the processing is space-time processing.

4. (New) The method of claim 1, wherein the recovering includes demodulating.

5. (New) The method of claim 1, wherein the recovering includes deinterleaving.

6. (New) The method of claim 1, wherein the recovering includes decoding.

7. (New) The method of claim 1, further comprising:

estimating interference due to the recovered symbol stream; and

canceling estimated interference from the received plurality of N_R input symbol streams, thereby creating a new plurality of N_R input symbol streams.

8. (New) The method of claim 7, further comprising:

determining whether all the NT detected symbol stream(s) have been recovered; and

iterating through the steps of processing, recovering, estimating, and canceling until all the NT detected symbol stream(s) have been recovered.

9. (New) An apparatus in a multi-channel communication system, comprising:

means for receiving a plurality of N_R input symbol streams;

means for processing the plurality N_R input symbol streams to provide N_T detected symbol stream(s) where $N_T \geq 1$; and

means for recovering a selected detected symbol stream from the N_T detected symbol stream(s).

10. (New) The apparatus of claim 9, further comprising:

means for estimating interference due to the recovered symbol stream; and

means for canceling estimated interference from the received plurality of N_R input symbol streams, thereby creating a new plurality of N_R input symbol streams.

11. (New) The apparatus of claim 10, further comprising:

means for determining whether all the NT detected symbol stream(s) have been recovered; and

means for iterating through the steps of processing, recovering, estimating, and canceling until all the NT detected symbol stream(s) have been recovered.

12. (New) A memory communicatively coupled to a digital signal processing device (DSPD) capable of interpreting digital information to:

process a plurality N_R input symbol streams to provide N_T detected symbol stream(s) where $N_T \geq 1$; and

recover a selected detected symbol stream from the N_T detected symbol stream(s).